

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number  
**WO 2005/081626 A3**

(51) International Patent Classification:  
*H02N 11/00* (2006.01)

(21) International Application Number:  
PCT/IL2005/000186

(22) International Filing Date:  
14 February 2005 (14.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
160623 26 February 2004 (26.02.2004) IL

(71) Applicant and

(72) Inventor: **MORGENSTEIN, Haim** [IL/IL]; 269 Ketalav  
Street, 71947 Beit-Arie (IL).

(74) Agents: **LUZZATTO, Kfir** et al.; P.O. Box 5352, 84152  
Beer Sheva (IL).

(81) Designated States (*unless otherwise indicated, for every  
kind of national protection available*): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,  
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every  
kind of regional protection available*): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

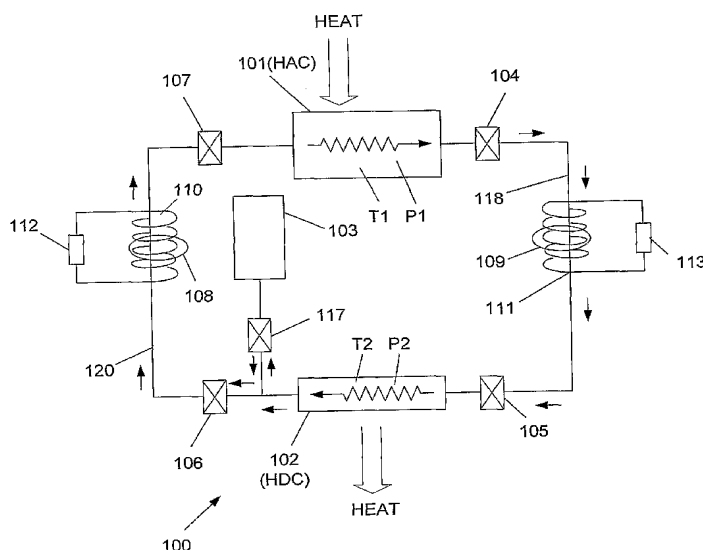
**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

(88) Date of publication of the international search report:  
27 July 2006

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: THERMAL TO ELECTRICAL ENERGY CONVERTER



(57) **Abstract:** The invention is a converter for converting thermal energy into electrical energy. The energy conversion takes place by causing magnetic particles that are initially suspended in ferrofluid to circulate in the converter and to induce electric currents when they pass through one or more coils of electric wires that are coiled around parts of the conduits of the converter. The particles are caused to circulate around the main circuit of the converter by controlling the local temperature and pressure at different locations in the main circuit. The invention also is a method of using the converter to produce electricity.

WO 2005/081626 A3